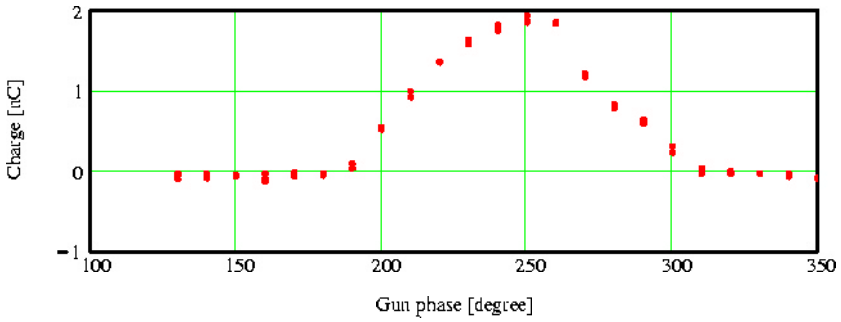
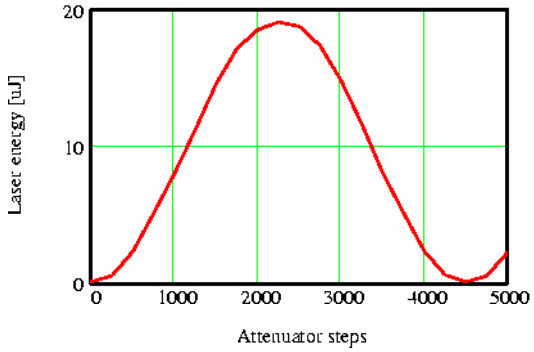
Measured on 2/2/01

Photoinjector performance

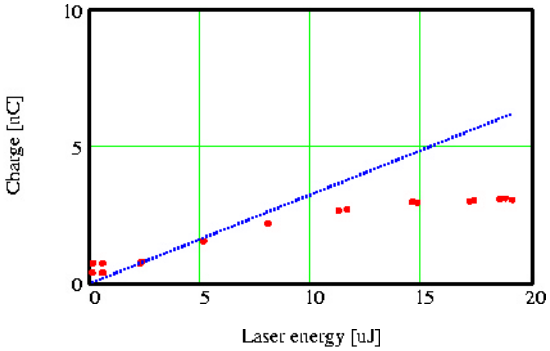
Charge (nC) vs. laser to RF nominal phase (degrees with arbitrary zero point):



Laser energy (microJoules) vs. laser cross polarizer (step number, arbitrary units):



Electron charge (nC) vs. Laser energy on the cathode (microJoules):



Derived quantities:

Maximum available laser energy [microJoules]:	MaxLaserEnergy = 19.227
Space-charge limited laser energy [microJoules]:	NomLaserEnergy = 6.263
Quantum efficiency [nC/microJoule]:	QuantumEfficency = 0.325
Quantum efficiency [percent]:	0.466 QuantumEfficency = 0.152
Maximum (space-charge limitted laser energy) charge [nC]:	MaxCharge = 1.934
measured at a laser energy of:	LaserEnergyMean = 6.411
and at a nominal gun phase of:	MaxGunPhase = 249.969

Statistics:

Laser energy standard deviation [%]	LaserEnergyStdDev = 3.535
Peak to Peak laser energy jitter [%]:	LaserEnergyPeak2Peak = 24.897

Operating point:

Nominal charge [nC]:	NomCharge = 0.068
@ Gun Phase [deg]:	NomGunPhase = 189.969
Gun Forward Power [Volts]:	GunFrwdPower = -1.171